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**SPILL PREVENTION, CONTROL, AND COUNTERMEASURES  
BEST MANAGEMENT PLAN**

**N O A A**

**NATIONAL WEATHER SERVICE  
Spokane Weather Forecast Office  
2601 North Rambo Road  
Spokane, Washington**

Designated Person Responsible for Spill Prevention (DRO):

Printed Name: John Livingston - MIC

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: 509-244-0110

The Regional Environmental Compliance Officer (RECO) has reviewed the facility and determined that an SPCC Plan is not required per 40 CFR 112. This Plan is developed strictly as a Best Management Plan. The determination is based on :

\_\_\_\_\_ The facility does not exceed capacity.

  X   The facility meets capacity requirements but, a discharge will not reach navigable waterways.

RECO Printed Name: Thanh Minh Trinh, P. E.  
Phone: (206) 526-6647

RECO Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **PART I - GENERAL INFORMATION**

### **A. GENERAL**

This section of the Best Management Practices plan provides general information about the facility.

**1. Name:**  
National Weather Service , Weather Forecast Office (WFO) & Radar Facility (RDA)

**2. Date of Initial Operation:** 1995 — Aboveground Fuel Tanks Installed

**3. Location**

National Weather Service Office (WFO) and Radar Facility (RDA)

Street: 2601 North Rambo Road

City: Spokane

State/Zip: Washington 99224

Latitude: 47° - 40' - 51" North

Longitude: 117 ° - 37' - 40" West

Elevation: 2382 ft. MSL

**4. Name and phone number of Owner (POC)**

National Weather Service

Western Region

125 South State Street, Room 1311

Salt Lake City, Utah 84138

Phone: (801) 524-5138 Ext 223

**5. Facility Contacts (Environmental coordinator, Area Safety Representative, Alternate, Focal Point, First Responder)**

<u>Name</u>	<u>Title</u>	<u>Telephone Number</u>
Rob Sumpter	Envir. Coord.	(509) 244-0110 Ext 262
John S. Livingston	MIC	(509) 244-0110 Ext 222
Mike Belarde	SFT	(509) 244-0110 Ext 270

## **B. SITE DESCRIPTION AND OPERATIONS**

This section describes the site and its operations.

### **1. Facility Location, Layout, and Operations**

The facility is located at a site approximately 5-miles northwest of the Spokane International Airport (APPENDIX J - FIGURE 1). The ground is owned by the National Weather Service (NWS) and all facilities have been constructed and are owned by the NWS. The site improvements consists of a National Weather Service Weather Forecast Office (WFO) building, WSR-88D Radar facility, an Engine-Generator/Storage building, a Balloon Inflation building, a Maintenance Shop building, a paved parking area and miscellaneous meteorological instruments, antennas and landscaping. The site is located on flat ground with the direction of drainage being to the south (APPENDIX J -Figure 2). A 1,000-gallon aboveground storage tank (AST) supplies diesel fuel to an emergency generator. The AST is located in a non-fenced area adjacent to the Generator building. Both the generator building and the AST are located away from the parking lot and neither are attached to the WFO. There is an active water well located approximately 220-feet southwest of the AST.

The WSR-88D radar facility is co-located on the site. This facility consists of a steel tower with radar pedestal and radome, a RDA Equipment Building and an Emergency Generator Building which houses an 80kw diesel powered emergency generator and an UPS shelter. The RDA site is surrounded with a 7' high security fence. The RDA site operates on an independent Engine-Generator system. This system has two separate, single walled steel, 240-gallon interconnected diesel fuel tanks located inside the generator shelter. The shelter is constructed to provide secondary liquid containment for the entire contents of the two diesel fuel tanks in the event of fuel leaks or spills.

### **2. Fuel Ullage**

Records of past fuel usage are not available. The AST and the RDA tanks are normally filled when either of them becomes about one-third empty. This amount is approximately 300-gallons. Each generator are run once each week for about one-half hour for maintenance and testing purposes. The average fuel consumption of the two generators is approximately 8-gallons per hour. The generators are automatically started if the commercial power is interrupted and will continue to run until the commercial power is restored and stabilized. Under normal conditions, the tank is filled about once each year.

### **3. Facility Storage**

The WFO AST is a 1,000-gallon, JoaQuin Manufacturing Co., rectangular shaped, horizontal tank. The AST is located in an unfenced area adjacent to the Generator Building. The AST and loading area are lighted for night time operations. This AST meets the Underwriter's Laboratory Standard 2085 for protected secondary containment. The primary steel tank is encased in a 6-inch thick reinforced concrete secondary containment vault. The AST has primary and emergency vents, as well as overfill protection that includes an automatic shutoff valve, an overfill alarm and a 3-gallon overfill bucket.

The AST is provided with an electronic monitoring and alarm system that monitors the interstitial area inside the tank for leakage. The system also monitors for overfill conditions. Should either an overfill or leakage in the interstitial area occur, the system provides both visual and audible alarms into the office.

#### **4. Piping**

A 3/4-inch supply line from the WFO AST is encased in a 4-inch diameter polyvinyl chloride pipe that exits the AST from its top and runs to the exterior wall of the generator shelter. There is a 27-gallon day tank located between the AST and the generator. The day-tank sits in a "spill pan" at the base of the generator and has a high-level alarm switch which activates a visual and an audible alarm in the office when spilled fuel rises in the "spill pan".

Piping for the RDA tanks are all located in the building, above the tanks, and are fully visible for easy inspection at all times.

#### **5. Spill Risks**

The AST and associated generator are located on flat ground which has been sloped for drainage. Flow from the WFO AST will be to the west for approximately 50-feet across a paved parking area and then into a weed covered swale with a flow to the south to a point southwest of the WFO. The drain swale then turns to the east and carries the drainage into a storage and evaporation area which is located approximately 150-feet east of the WFO building. This storage and evaporation area is located on the NWS property. Spills from loading accidents or piping failures will accumulate in the soil or on the paved parking area adjacent to the Generator Building (Appendix J - Figure 2). Any spilled fuel, in large or small amounts, will remain on the NWS property.

The RDA Generator Shelter provides full secondary containment for the inside tanks. However, in the event that fuel should be spilled or leaked from the containment, it will be absorbed by the soil in the immediate area around the RDA shelter.

Any spill, from the fill truck should be contained on the NWS property or will follow the same drainage pathway as described above.

There is no potential for spills, from this site, to ever reach navigational waters.

## **6. Chemical Storage Locations**

In addition to the diesel fuel used for the emergency power generator, this facility also stores chemicals ( e.g., oils, paint, solvents, antifreeze, cleaning compounds and pesticides) for the operation, maintenance and testing of station facilities and equipment. These are stored/used in the following location(s):

**Location :** (Example: Flammable locker next to the coffee mess)

- a. Unused oil in original containers — Stored in Generator Building
- b. Paint in spray cans — Stored in Flammable Locker located in storage room
- c. Station Cleaning Supplies — Stored in the janitor's closet and storage room
- d. Lubricants in spray cans — Stored in Flammable Locker located in the Storage room
- e. Pesticides — Stored in plastic container on shelf in station storage room
- f. New Batteries — Stored in the station storage room in original containers
- g. New Fluorescent Light tubes — Stored in original containers in the station storage room.

## **7. Permits Required (Copies Attached in Appendix H)**

Permits Not required

## Part II - OPERATIONAL PROCEDURES FOR SPILL PREVENTION

**A. Tank Refueling Operations.** This section discusses the procedures that shall be used during unloading of fuel from the tank truck into the AST to prevent spills. This procedure shall be documented every time refueling occurs using the form found in Appendix A. Copies of this form shall be kept for five (5) years.

1. The following procedure shall be used **before** fuel unloading: (APPENDIX A)

- a. The Facility Manager or his designated representative should determine the available capacity (ullage) of the AST by converting the reading on the fuel gauge to gallons (See Appendix A). This ullage is communicated to the fuel supply contractor and marked in the fueling log.
- b. Move spill containment equipment such as booms, spill barriers or spill kits into the unloading area.
- c. Block the tank truck wheels.
- d. Place drip pans under all pump hose fittings (if applicable) before unloading.
- e. The Facility Manager or his designated representative and the delivery driver ensure the fill nozzle is placed in the appropriate AST appurtenance.

2. The following procedure shall be used **during** the fuel unloading period: (APPENDIX A)

- a.. The Facility Manager or his designated representative and the delivery driver shall remain with or near the vehicle and the fuel tanks at all times during unloading. Gauges on the AST and the truck, as well as the fueling nozzle, shall be continuously monitored to ensure the ullage is not exceeded. If the audible high-level alarm sounds, stop the unloading procedure immediately to ensure fuel ullage is not exceeded.

3. The following procedure shall be used **after** fuel unloading is completed: (APPENDIX A)

- a. Record the amount of fuel transferred to the AST in the log (Appendix A).
- b. Drain the fill hose and then ensure that all drain valves are closed (if applicable) before removal of the hose from the tank
- c. Pour any uncontaminated fuel in the drip pans, tank truck containment pool, or spill pipe spill bucket container into the AST (if it has the capacity) or dispose of appropriately.
- d. Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.
- e. Remove the blocks from truck wheels.
- f. Place a copy of the fuel-unloading checklist in the SPCC BMP.

## **PART III - SPILL COUNTERMEASURES AND REPORTING**

### **A. SPILL COUNTERMEASURES**

This section presents countermeasures to contain, clean up, and mitigate the effects of any oil spills at this site.

A spill containment and cleanup activity will never take precedence over the safety of personnel. No countermeasures will be undertaken until conditions are safe for workers. The **SWIMS** procedure should be implemented as countermeasures:

- S -** Stop the leak and eliminate ignition sources.
  - a. Attempt to seal or some how stop leak if it can be done safely.
  - b. Attempt to divert flow away from any drainage ditch, storm sewer or sanitary sewer with a spill barrier or the contents of spill kit. The spill kit is located in the Generator Building.
  - c. Eliminate all ignition sources in the immediate area.
  
- W -** Warn others.
  - a. Yell out “SPILL”. Inform the person in-charge at your facility.
  - b. Account for all personnel and ensure their safety.
  - c. Notify contacts and emergency response contractor as described in the following section for assistance in control and cleanup.
  
- I -** Isolate the area.
  - a. Rope off the area
  
- M -** Minimize your exposure to the spilled material by use of appropriate clothing and protective equipment. If possible, remain upwind of the spilled material.
  
- S -** Standby to assist the emergency response contractor.



**B. SPILL REPORTING (APPENDIX C):**

**1. General Notification Procedures For All Spills:**

Within 24 hours, the responsible person or designee (on this plan title page or in Part 1, A.5.) is directly charged with reporting **all** oil spills that result from facility operations as follows:

- a. In the event of an emergency (e.g., fire, or injury), call **911**.
- b. Notify the appropriate persons within your WFO, Regional Office and line office:

**National Weather Service:**

**Mike Jacob, NWS Environmental Compliance Officer (NWSH)**

**Phone number: (301) 713-1838 Ext. 165, [Jmichael.Jacob@NOAA.GOV](mailto:Jmichael.Jacob@NOAA.GOV)**

**Olga Kebis, NWS Safety Officer (NWSH)**

**Phone number: (301) 713-1838 Ext. 173, [Olga.Kebis@NOAA.GOV](mailto:Olga.Kebis@NOAA.GOV)**

**Robert Kinsinger, Regional Environmental Compliance Coordinator (ECC)  
in Western Region Headquarters**

**Phone number: (801) 524-5138 Ext. 223 Email: [robert.kinsinger@noaa.gov](mailto:robert.kinsinger@noaa.gov)**

- c. **NOAA Environmental Compliance and Safety Office Program:** E-mail or call your **RECO**.

**WASC [Thanh.M.Trinh@NOAA.GOV](mailto:Thanh.M.Trinh@NOAA.GOV) Phone: (206) 526-6647**

- d. **LECO – The Eastern Regional Office of the Department of Ecology**

**At 509-456-2926**

**Note:** **LECO & RECO** must determine if Federal or State notification is required and follow up accordingly. (The State of Washington reporting rules are included in RCW 90.56.280 and WAC 173-303-143. These rules require that any amount of a regulated waste or hazardous material that is spilled to the environment (air, land, surface waters, ground waters).that may detrimentally affect health, the environment, or property must immediately be reported. to):

**State and Local Notification**

**State Emergency Management Division**

**1-800-258-5990**

## 2. Cleanup Contractor Notification

An emergency response contractor should also be notified to assist with the clean up if necessary. **NWS/WFO at Spokane** has identified and contacted the following contractors that are available for an emergency response:

<u>Contractor(s)</u>	<u>Phone Number</u>
• MCS Environmental, Inc.	(509) 924-9236
• The Lambert Group	(509) 536-6900
• Industrial Tank Maintenance Co.	(509) 535-6900
• Rob's Demolition Co.	(509) 928-0431

## 3. Spill Report

Complete a spill report using the format provided in APPENDIX C. Send this to your RECO with a copy to the Western Region ECC.

### C. Training

The Environmental/Safety Focal Point and an alternate should be trained in 1)the refueling procedures, 2)countermeasures, and 3)spill reporting. The alternate should be designated in case the primary person is off site at the time of a spill.

(See APPENDIX D for Training Outline and Training Record form)

### D. Personal Protective Equipment (PPE)

- PPE information is specified in the **MSDS**
- Eye protection is accomplished by the use of **Chemical Goggles**
- Hand protection is accomplished by the use of **Nitril Gloves**
- Other clothing & equipment - if contaminated, must be removed and laundered before reuse. Items which cannot be laundered should be discarded.
- Appropriate NIOSH-approved respiratory protection to avoid inhalation of mist or vapors which may be present under hot temperature conditions.

## **APPENDIX A**

### **TANK ULLAGE/FUELING LOG AND FUEL UNLOADING PROCEDURES CHECKLIST**

**APPENDIX A-1**  
**TANK ULLAGE AND FUELING LOG**

Station Name: \_\_\_\_\_

Tank Capacity: \_\_\_\_\_ gallons

<b>Date</b>	<b>Initials</b>	<b>Gauge Reading</b>	<b>Initial Volume of Fuel in Tank <sup>a</sup> (Gallons)</b>	<b>Available Capacity or Ullage <sup>b</sup> (Gallons)</b>	<b>Quantity Added (Gallons)</b>	<b>Comments</b>

Notes:

- a. From gage reading
- b. Available capacity = tank capacity - initial volume of fuel in tank

**APPENDIX A-2**

**FUEL UNLOADING PROCEDURE CHECKLIST**

**Date:** \_\_\_\_\_ **Tank:** \_\_\_\_\_

**NWS Representative:** \_\_\_\_\_ **Supplier:** \_\_\_\_\_

ITEM	DESCRIPTION	COMMENTS
✓		
<b>The following six items must be completed <u>prior</u> to fuel unloading:</b>		
1	Move spill containment equipment, such as booms or spill barriers, into the unloading area.	
2	Ensure the audible high-level alarm system and automatic shutoff valve are functioning properly (if applicable).	
3	Determine the available capacity (ullage) of the tank by converting the reading on the fuel gauge to gallons (see Appendix A-1). The ullage should then be marked in the fueling log and communicated to the tank truck unloading contractor.	
4	Block the wheels of the tank truck.	
5	Place drip pans under all pump hose fittings (if applicable) after the hose is hooked up to the tank and before unloading.	
6	Ensure the fill nozzle is placed in the appropriate tank appurtenance.	
<b>During unloading</b>		
7	Ensure that the NWS representative and the tank truck operator remain with the vehicle at all times during unloading.	
8	Monitor the gauges on the tank and the truck continuously to ensure the ullage is not exceeded.	
<b>After fuel unloading is completed</b>		
9	Record the amount of fuel unloaded in the log (Appendix A-1).	
10	Before removing the fill hose from the tank, ensure that it is drained and that all drain valves are closed (if applicable).	
11	Any fuel accumulated in the drip pans or spill container on the fill pipe should be poured into the tank (if it has the capacity) or disposed of appropriately (describe how it was disposed of, if applicable).	
12	Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.	
13	Remove the blocks from the tank truck wheels.	
14	Place a copy of this fuel unloading procedure checklist in the Best Management Plan.	

**APPENDIX B**

**TANK INSPECTION CHECKLIST**

MONTHLY INSPECTION CHECKLIST			
Date of Inspection:		Tank Name or No.:	
Date of Last Inspection:		Inspected by:	Signature:
<b>A. TANKS</b>	YES	NO	NOTES
1. Are tanks marked properly?			
2. Is area atop and around tank and within berm free of combustible materials and debris? stains?			
3. Is there any oil on the ground, concrete, or asphalt around the tank?			
4. Are there any visible cracks or indications of corrosion on the tank, at fittings, joints, or seals (such as paint peeling or rust spots)?			
5. Are there any raised spots, dents, or cracks on the tank?			
6. Does it appear that the foundation has shifted or settled?			
7. Is the fuel gauge working properly?			
8. Are all vents clear so they may properly operate?			
9. If rainwater is present within containment, does capacity remain for spill control, if applicable?			
<b>B. PIPING</b>			
1. Is there any oil on the outside of or under any aboveground piping, hoses, fittings, or valves?			
2. Are aboveground piping hoses, fittings, or valves in good working condition?			
<b>C. SECURITY/SAFETY/SPILL COUNTERMEASURES</b>			
1. Are lights working properly to detect a spill at night?			
2. Are all locks in the "lock" position?			
3. Are all warning signs properly posted and readable?			
4. Are vehicle guard posts in place and properly secured (if applicable)?			
5. Are spill kits easily accessible, protected from the weather, complete, and replenished if necessary?			
<b>Corrective Actions Required:</b>			

ANNUAL INSPECTION CHECKLIST (Page 1 of 1)			
Date of Inspection:		Tank Name or No.:	
Date of Last Inspection:		Inspected by:	
		Signature:	
<b>A. MONTHLY CHECKLIST</b>	<b>YES</b>	<b>NO</b>	<b>NOTES</b>
1. Have monthly inspection checklists been completed?			
<b>B. TANKS</b>			
1. Are all alarms and automatic shutoff devices working properly?			
2. Is interstitial monitor functioning properly (if applicable)?			
<b>C. OTHER</b>			
1.			
<b>Corrective Actions Required:</b>			



**APPENDIX C**

**SPILL REPORTING**

**APPENDIX C**  
**SPILL REPORTING**

<b>1. GENERAL</b>		
Name of Facility:	Address:	
Completed By:	Organization:	
Position:	Phone:	
<b>2. SPILL INFORMATION</b>		
Date:	Time:	
Location at Facility:	Quantity:	
Substance Spilled:	Other:	
<b>3. OUTSIDE NOTIFICATIONS: ( Insert telephone numbers)</b>		
<b>Agencies</b>	<b>Record the external regulatory agency representative name when making the calls.</b>	<b>Date &amp; Time</b>
Call <b>911</b> for emergency assistance		
Regional Management (see Part III Section B subparagraph 1.b) (801) 524-5138 Ext.223		
Line Office Environmental Compliance Officer (see Part III Section B subparagraph 1b) (301) 713-1838 Ext 165 or Ext 173		
<b>NOAA, RECO</b> (see Part III Section B subparagraph 1.c) (205) 526-6647		
EPA National Response Center or U.S. Coast Guard : (800) 424-8802		
State of Washington Emergency Management Division. Phone: (800) 258-5990		
<b>LECO</b> — Eastern Regional Office of the Department of Ecology. Phone: (509) 456-2926		
<b>4. INFORMATION ON SOURCE AND CAUSE</b>		
<b>5. DESCRIPTION OF ENVIRONMENTAL DAMAGE</b>		
<b>6. CLEANUP ACTION(S) TAKEN</b>		
<b>7. CORRECTIVE ACTION(S) TO PREVENT FUTURE SPILLS</b>		

Note: All information must be filled in. If something is unknown, write “unknown”.  
Copies must be sent, preferably by e-mail, to the NWS/NOAA personnel listed above.

**APPENDIX D**

**TRAINING OUTLINE & TRAINING RECORD**

**APPENDIX D-1**

## **TRAINING OUTLINE: SPILL PREVENTION, CONTROL AND COUNTERMEASURES**

Training will be provided for facility personnel at the following times:

1. System startup or whenever new equipment is installed
2. Within the first week of employment for new personnel
3. Annually

The training will include complete instruction in the elements of the facility's Spill Prevention, Control, and Countermeasure plan and will include the following:

1. Pollution control laws, rules, and regulations including a summary of Title 40 of the Code of Federal Regulations Part 112 "Oil Pollution Prevention" (see Attachment)
2. Fuel Storage System
  - A. Purpose and application of the following system elements:
    1. Tanks
    2. Piping
    3. Pumps
    4. Accessory equipment
    5. Electronic monitors
  - B. Operation, maintenance, and inspection of system elements
3. Spill Prevention
  - A. Potential spill sources
  - B. Spill flow direction and impact on navigable waters
  - C. Procedures to prevent spills, especially during fuel unloading
4. Spill Control
  - A. Secondary containment
  - B. Safety valves
  - C. Pump and equipment shutoff switches
  - D. Use of catch basin inlet covers or other diversionary devices
5. Spill Countermeasures
  - A. Location and use of emergency phone numbers
  - B. Location and use of fire extinguishers
  - C. Location and use of spill cleanup kit
  - D. Stopping the leak

## APPENDIX D-2

### TRAINING REPORT FORM

DATE OF TRAINING	EMPLOYEE TRAINED	TRAINER	REMARKS

**APPENDIX E**

**MATERIALS SAFETY DATA SHEET ATTACHMENT**

**APPENDIX F**

**SPILL CLEANUP KIT INFORMATION ATTACHMENT**

**APPENDIX G**

**FUEL TANK DATA AND INFORMATION**



# **APPENDIX H**

## **PERMITS**

**APPENDIX I**

**PHOTOGRAPHS OF FACILITY TANKS AND PIPING**

## **APPENDIX J (MAPS & DRAWINGS)**

**FIGURE 1: .....Site Location Map**

**FIGURE 2: .....Topographic Map & Site Layout**

**FIGURE 3: ..... Site Piping Diagram**